3Com VCX® V7122™ Digital Gateway Installation Guide

System Release 5.2

http://www.3com.com/

Part Number 900-0506-01 Rev AA
Published February 2008

3Com Corporation
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Marlborough, MA
01752-3064

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About This Guide

This guide describes the installation of the V7122 Digital Gateway.

Information contained in this document is believed to be accurate and reliable at the time of printing. However, because of on-going product improvements and revisions, 3Com cannot guarantee the accuracy of printed material after the Date Published nor can it accept responsibility for errors or omissions. Updates to this document and other documents can be viewed by registered Technical Support customers at www.3Com.com under Support / Downloads & Drivers.

When viewing this manual electronically, all cross-references are hyperlinked. Click the link (blue and underlined) to navigate to the target location. To return to your original location, simultaneously press the ALT key and the Left Arrow key.

How to Use This Guide

This book covers these topics:

- Chapter 1: Quick Start
- Chapter 2: Installing the V7122 Media Gateways
- Chapter 3: Configuring the V7122 Media Gateways
- Chapter 4: Changing the V7122 Media Gateway Username and Password
- Chapter 5: Restoring and Backing Up the V7122 Media Gateway Configuration
- Chapter 6: Monitoring the V7122 Media Gateways
- Chapter 7: Upgrading the V7122 Media Gateways

Conventions

Table 1 lists conventions that are used throughout this guide.

Table 1 Notice Icons

Icon	Notice Type	Description
	Information note	Information that describes important features or instructions
	Caution	Information that alerts you to potential loss of data or potential damage to an application, system, or device
	Warning	Information that alerts you to potential personal injury

Documentation Comments

Your suggestions are important to us because we want to make our documentation more useful to you.

Please send e-mail comments about this guide or any of the V7122 gateway documentation and Help systems to:

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Please include the following information with your comments:

- Document title
- Document part number (usually found on the front page)
- Page number
- Your name and organization (optional)

See the Appendix Obtaining Support for Your 3Com Product for how to register your product and get support from 3Com.

Notices

WEEE EU Directive

Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used. Only industry-standard terms are used throughout this manual. Hexadecimal notation is indicated by 0x preceding the number.

*Where **network** appears in this manual, it means LAN, WAN, etc. accessed via the gateway's Ethernet interface.*

***FXO** (**F**oreign E**x**change **O**ffice) is the interface replacing the analog telephone and connects to a Public Switched Telephone Network (PSTN) line from the Central Office (CO) or to a Private Branch Exchange (PBX). The FXO is designed to **receive** line voltage and ringing current, supplied from the CO or the PBX (just like an analog telephone). An FXO VoIP gateway interfaces between the CO/PBX line and the Internet.*

***FXS** (**F**oreign E**x**change **S**tation) is the interface replacing the Exchange (that is, the CO or the PBX) and connects to analog telephones, dial-up modems, and fax machines. The FXS is designed to **supply** line voltage and ringing current to these telephone devices. An FXS VoIP gateway interfaces between the analog telephone devices and the Internet.*

***WARNING:** Ensure that you connect FXS ports to analog telephone or to PBX-trunk lines only and FXO ports to Central Office (CO)/PBX lines only.*

The V7122 gateway is supplied as a sealed unit and must be installed or serviced only by qualified service personnel.

1 QUICK START

This guide provides you with step-by-step procedures on how to quickly setup the 3Com V7122 VoIP Gateways for the first time. Prior knowledge of IP networks is recommended.

The following steps provide a quick setup flow.

1. Unpack the V7122 Gateways
2. Mount the V7122 Gateways
3. Cable the V7122 Gateways
4. Assign the V7122 Gateway IP Addresses
5. Configure the V7122 Gateways basic control protocol parameters
6. Configure the PSTN parameters

2 Installing the V7122 Media Gateways

This section provides information on the hardware installation procedure for the V7122 Digital Gateways.

WARNING: Electrical Shock
The equipment must be installed or serviced only by qualified service personnel.

The figure below shows the front panel of the V7122 media gateway. For information on the V7122 LEDs, see Monitoring the V7122 Chassis LEDs.

Figure 1 V7122 Front View

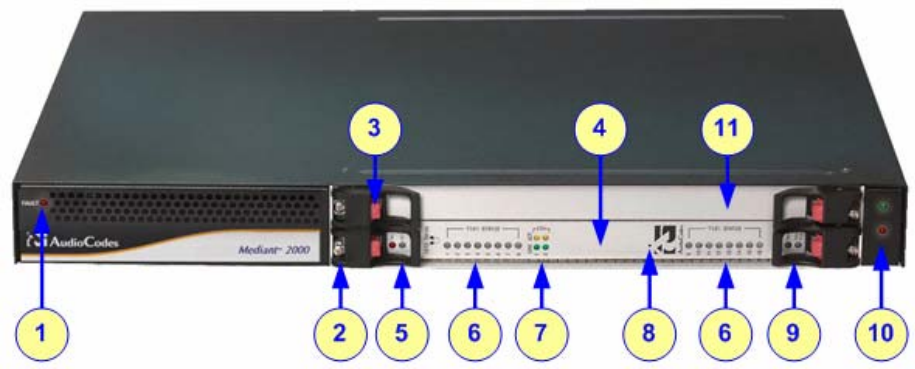


Table 2 V7122 Front View Component Descriptions

Item	Label	Component Description
1	FAULT	Dual AC Power LED
2	--	cPCI board locking screws
3	--	cPCI latches
4	--	TP 1610 cPCI board, 16-trunk configuration
5	--	Status LED indicators
6	T1/E1 STATUS	E1/T1 Trunk Status LED indicators

Table 2 V7122 Front View Component Descriptions (continued)

Item	Label	Component Description
7	ETH	Ethernet LED indicators
8	--	Reset button
9	--	cPCI LED indicators
10	--	Power and Fan LEDs
11	--	An available cPCI slot for an optional third-party CPU board

The following main sequential steps need to be performed for installing the V7122:

1. Unpack the V7122 (see Unpacking).
2. Check the package contents (see Package Contents).
3. Mount the V7122 (see Mounting the V7122).
4. Cable the V7122 (see Cabling the V7122).

After powering-up the V7122, the **Ready** and **LAN** LEDs on the front panel turn to green (after a self-testing period of about three minutes). Any malfunction changes the Ready LED to red (see Monitoring the V7122 Chassis LEDs for details on the V7122 LEDs).

Once you have completed these hardware installation steps, you can begin configuring the gateway (see Configuring the V7122 Media Gateways).

Unpacking

Follow the procedure below for unpacking the box in which the V7122 is delivered.

To unpack the V7122, perform these steps:

1. Open the carton and remove packing materials.
2. Remove the V7122 unit from the carton.
3. Check that there is no equipment damage.
4. Check, retain and process any documents.
5. Notify 3Com or your local supplier of any damage or discrepancies.

Package Contents

Ensure that in addition to the V7122 unit, the package contains the following items:

- Two AC power cables (for the dual AC power supply hardware version only).
- One AC power cable (for the single AC power supply hardware version only).
- One DC power cable (crimp connection type) and one DC adaptor (screw connection type) connected to the V7122 rear panel -- use only one type. (For the DC power supply hardware version only.)
- Small plastic bag containing the following (see Figure 2):
- Two brackets and four bracket-to-device screws for 19-inch rack installation option.
- Four anti-slide bumpers for desktop mounting.
- This Installation Guide.

Figure 2 19-inch Rack & Desktop Accessories

Mounting the V7122

The V7122 can be mounted on a desktop, or installed in a standard 19-inch rack.

Desktop Mounting

Optionally, attach the four (supplied) anti-slide bumpers to the base of the V7122 and place it on a desk in the required position.

19-inch Rack Mounting

You can install the device in a standard 19-inch rack either by placing the device on a shelf pre-installed in the rack (preferred method), or by attaching the device directly to the rack's frame using the V7122 integral brackets.

CAUTION: *Rack Mount Safety Instructions (UL)*

When installing the chassis in a rack, be sure to implement the following safety instructions recommended by Underwriters Laboratories:

- *Elevated Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.*
- *Reduced Air Flow: Installation of the equipment in a rack should be such that the amount of air flow required for safe operation on the equipment is not compromised.*
- Mechanical Loading: Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- *Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.*
- *Reliable Earthing: Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips.)*

Before rack mounting the V7122, you need to attach the two brackets (supplied) to the front sides of the chassis (see Figure 3).

To attach the two front side brackets, perform these steps:

1. Remove the two screws nearest the front panel on either side of the device.
2. Align a bracket over two holes on one side (so that the bracket's larger holes face front) and with the two supplied replacement screws, screw in the bracket.
3. Perform the same procedure on the other side.

Figure 3 V7122 Front Panel with 19-inch Rack Mount Brackets

To attach the V7122 to a 19-inch rack, perform these steps:

1 Position the device in your 19-inch rack and align the left-hand and right-hand bracket holes to the required holes in the vertical tracks of the 19-inch rack.

2 Use standard 19-inch rack bolts (not provided) to fasten the device to the frame of the rack.

3Com recommends using two additional rear mounting brackets (not supplied) to provide added support.

If you are assembling the rear brackets, note the following:

- *The distance between the screws on each bracket is 26.5 mm.*
- *To attach the brackets, use 4-40 screws with a maximal box penetration length of 3.5 mm.*

To install the V7122 on a 19-inch rack shelf, perform these steps:

1 Place the gateway on the pre-installed shelf.

2 You're now recommended to perform the optional steps of fastening the device to the frame of the rack (as described above) while it is placed on the shelf. This prevents it from sliding when inserting cables into connectors on the rear panel.

Cabling the V7122

The V7122 is available in various configurations (i.e.,16-, 8-, 4-, 2-, or 1-trunk gateway). The 16-trunk dual AC (Figure 4) configuration is illustrated here as a representative product.

Figure 4 V7122 (16 Trunks, Dual AC Power H/W Configuration) Rear-Panel Cabling

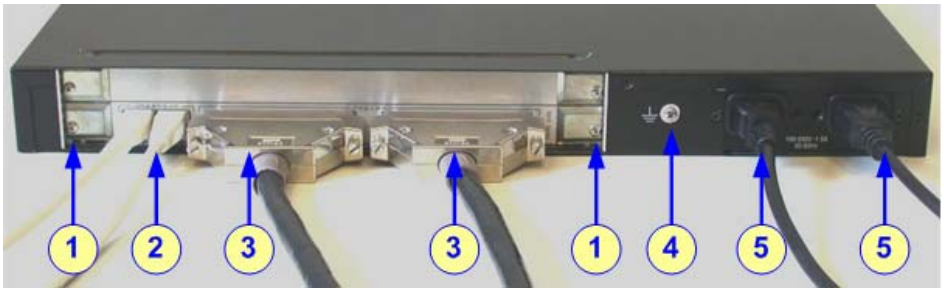


Table 3 V7122 (16 Trunks, Dual AC Power) Rear-Panel Cabling

Item	Label	Component Description
1	--	RTM locking screws.
2	ETHERNET	Two Category 5 network cables, connected to the two Ethernet RJ-45 ports.
3	TRUNKS	Two 50-pin Telco connector cables, each supporting eight trunks.
4	⏚	Protective earthing screw.
5	100-240~1.5A	Dual AC power cables.

CAUTION: *Electrical Earthing*

The unit must be permanently connected to earth using the screw provided on the rear panel. Use 14-16 AWG wire and a proper ring terminal for the earthing.

To cable the V7122, perform these steps:

1. Permanently connect the device to a suitable earth with the protective earthing screw on the rear panel, using 14-16 AWG wire.
2. Connect the E1/T1 trunk interfaces (see Connecting the E1/T1 Trunk Interfaces).
3. Install the Ethernet connection (see Installing the Ethernet Connection).
4. Connect the power supply (see Connecting the Power Supply).

Connecting the E1/T1 Trunk Interfaces

Connect the V7122 E1/T1 Trunk interfaces using either Telco (V7122 with 16 spans) or RJ-48 (V7122 with 1, 2, 4, or 8 spans) connectors, as described in the procedure below:

To connect E1/T1 trunk interface using 50-pin Telco connectors (16-trunk device), perform these steps:

1. Attach the Trunk cable with a 50-pin male Telco connector to the 50-pin female Telco connector labeled **Trunks 1-->8** on the Rear Transition Module (RTM).
2. Connect the other end of the Trunk cable to the PBX/PSTN switch.
3. Repeat steps 1 and 2 for the other Trunk cable, but this time connect it to the connector labeled Trunks 9-->16.

The 50-pin male Telco cable connector must be wired according to the pinouts described in Table 4, and to mate with the female connector illustrated in the figure below.

Figure 5 50-pin Female Telco Board-Mounted Connector

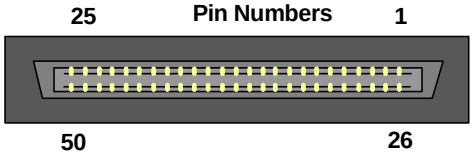


Table 4 E1/T1 Connections on each 50-pin Telco Connector

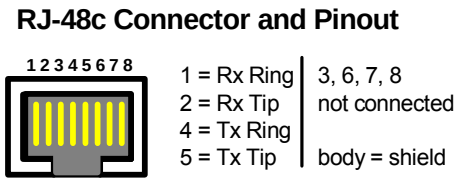
E1/T1 Number		Tx Pins (Tip/Ring)	Rx Pins (Tip/Ring)
1 to 8	**9 to 16**		
1	9	27/2	26/1
2	10	29/4	28/3
3	11	31/6	30/5
4	12	33/8	32/7
5	13	35/10	34/9
6	14	37/12	36/11
7	15	39/14	38/13
8	16	41/16	40/15

To connect E1/T1 trunk interface using RJ-48c connectors, perform these steps:

1. Connect the E1/T1 trunk cables to the ports labeled Trunks 1 to 8 (in the case of the 8-trunk device) on the V7122 RTM.
2. Connect the other ends of the Trunk cables to the PBX/PSTN switch.

RJ-48c trunk connectors are wired according to Figure 6.

Figure 6 Pinout of RJ-48c Trunk Connectors

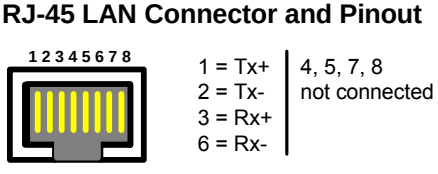


Installing the Ethernet Connection

Connect a standard Category 5 network cable to the Ethernet RJ-45 port (located on the rear panel). Connect the other end of the Category 5 network cables to your IP network. Connect the other Ethernet port for optional redundancy/backup. The Ethernet connectors (labeled **Ethernet 1** and **Ethernet 2**) are wired according to the figure below.

When assigning an IP address to the V7122 using HTTP (see Assigning an IP Address Using HTTP), you may be required to disconnect this cable and re-cable it differently.

Figure 7 Pinout of RJ-45 Connectors



For redundancy, it's recommended to connect each of the Ethernet connectors to a different switch.

Connecting the Power Supply

Connect the V7122 to the power supply using one of the following methods:

Connecting AC Power Supply

To connect power when using a single AC power cable attach one end of the supplied 100/240 VAC power cable to the rear AC socket and connect the other end to the correct earthed AC power supply.

WARNING: *Units providing power sockets with three pins must be connected by service personnel to a socket-outlet with a protective earthing connection.*

To connect power when using a dual AC power cable:

1. Before connecting the dual AC power cable, see the cautionary note below.
2. Attach one end of the supplied 100/240 VAC power cables to the rear AC sockets and connect the other end to a separate earthed mains circuits (for power source redundancy).

CAUTION: *For the dual AC power supply note the following:*

- *The LED on the left side of the chassis is only connected when the dual AC is used. It is not relevant to the single AC power connection.*
- *If only a single socket is connected to the AC power, (while the other plug is left unconnected) the chassis' LED (on the left side) is lit red, indicating that one of the dual power inlets is disconnected.*
- *When both the AC power cables are connected, one of the plugs can be disconnected under power without affecting operation, in which case the chassis' left LED is lit red.*
- *UPS can be connected to either (or both) of the AC connections.*
- *The dual AC connections operate in a 1+1 configuration and provides load-sharing redundancy.*
- *Each of the dual power cables can be connected to different power phases.*

3 CONFIGURING THE V7122 MEDIA GATEWAYS

The V7122 gateway is supplied with application software already resident in flash memory (with factory default 3Com parameters).

Assigning the V7122 IP Address below describes how to assign IP addresses to the V7122. Configuring the V7122 Basic Control Protocol Parameters describes how to set up the V7122 with basic parameters using a standard Web browser (such as Microsoft Internet Explorer).

Assigning the V7122 IP Address

The V7122 is composed of one or two identical media gateway modules. These media gateways are fully independent, each gateway having its own MAC and IP addresses.

To assign an IP address to each of the V7122 modules use one of the following methods:

HTTP using a Web browser (see Assigning an IP Address Using HTTP).

The embedded Command Line Interface (CLI) accessed using Telnet (see Assigning an IP Address Using the CLI).

Table 5 lists the default IP addresses of the V7122. You can use the **Reset** button at any time to restore the V7122 networking parameters to their factory default values (see Restoring Networking Parameters to their Initial State).

Table 5 V7122 Default Networking Parameters

V7122 Version	Default Value
Single module (up to 8 trunks	10.1.10.10
Double module (up to 16 trunks)	10.1.10.10 (Trunks 1-8) and 10.1.10.11 (Trunks 9-16)

Table 5 V7122 Default Networking Parameters (continued)

V7122 Version	Default Value
Default subnet mask is 255.255.0.0, default gateway IP address is 0.0.0.0	

Assigning an IP Address Using HTTP

To assign an IP address using HTTP, perform these steps:

1. Disconnect the V7122 from the network and reconnect it to your PC using one of the following two methods:
   - Use a standard Ethernet cable to connect the network interface on your PC to a port on a network hub / switch. Use a second standard Ethernet cable to connect the V7122 to another port on the same network hub / switch.
   - Use an Ethernet cross-over cable to directly connect the network interface on your PC to the V7122.
2. Change your PC's IP address and subnet mask to correspond with the V7122 factory default IP address and subnet mask (see Restoring Networking Parameters to their Initial State). For details on changing the IP address and subnet mask of your PC, refer to Windows™ Online Help (**Start > Help**).
3. Access the V7122 first module's Embedded Web Server (see Accessing the Embedded Web Server).
4. In the **Quick Setup** screen (Quick Setup menu), set the V7122 IP Address, Subnet Mask, and Default Gateway IP Address fields under IP Configuration to correspond with your network IP settings.
5. Click the **Reset** button, and then at the prompt, click **OK;** the V7122 applies the changes and restarts. This takes approximately three minutes to complete. When the V7122 completes the reset, the Ready and LAN LEDs on the front panel are lit green.

Record and retain the IP address and subnet mask you assign the V7122. Do the same when defining new username or password.

6. Repeat steps 3 to 5 for the V7122 second module (if used).
7. Disconnect your PC from the V7122 or from the hub / switch (depending on the connection method you used in step 1).
8. Reconnect the V7122 and your PC (if necessary) to the network.

9 Restore your PC's IP address and subnet mask to what they originally were. If necessary, restart your PC and re-access the V7122 via the Embedded Web Server with its new assigned IP address.

Assigning an IP Address Using the CLI

To assign an IP address using the CLI, perform these steps:

1 Enable the Embedded Telnet Server:

- **a** Access the V7122 Embedded Web Server (see Accessing the Embedded Web Server).
- **b** Set the parameter **Embedded Telnet Server** (under **Advanced Configuration > Network Settings > Application Settings**) to **Enable (Unsecured)**.
- **c** Reset the gateway. On the main menu bar, click the **Maintenance** button; the **Maintenance Actions** screen appears. From the **Burn to FLASH** drop-down list, select **Yes**, and then click the **Reset** button; the V7122 is shut down and re-activated. A message about the waiting period is displayed. The screen is refreshed.

2 Use a standard Telnet application to connect to the V7122 Embedded Telnet Server.

3 Login using the username (Admin) and password (Admin).

4 At the prompt type **conf,** and then press **Enter;** the configuration folder is accessed.

5 To check the current network parameters, at the prompt, type **GCP IP,** and then press **Enter;** the current network settings are displayed.

6 Change the network settings by typing: **SCP IP [ip_address] [subnet_mask] [default_gateway]** (e.g., **SCP IP 10.13.77.7 255.255.0.0 10.13.0.1**); the new settings take effect on-the-fly. Connectivity is active at the new IP address.

This command requires you to enter all three network parameters (each separated by a space).

7 To save the configuration, at the prompt, type **SAR**, and then press **Enter;** the V7122 restarts with the new network settings.

Restoring Networking Parameters to their Initial State

You can use the **Reset** button on the V7122 chassis to restore networking parameters to their factory default values (see Table 5) and to reset the username and password.

Note that the V7122 returns to the software version burned in flash. This process also restores the V7122 parameters to their factory settings. Therefore, you must load your previously backed-up ini file, or the default ini file (received with the software kit) to set them to their correct values.

This option is currently supported on one media gateway module (trunks 1-8) only.

To restore networking parameters to their initial state, perform these steps:

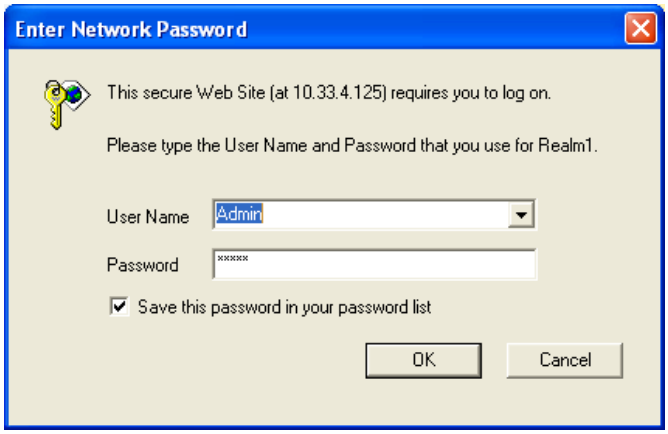
1. Disconnect the V7122 from the power and network cables.
2. Reconnect the power cable; the gateway is powered up. After approximately 45 seconds, the ACT LED blinks for about four seconds.
3. While the ACT LED is blinking, press shortly on the reset button (located on the front panel); the gateway resets a second time and is restored with factory default parameters (username: **Admin**, password: **Admin**).
4. Reconnect the network cable.
5. Assign the V7122 an IP address (see Assigning the V7122 IP Address).
6. Load your previously backed-up ini file, or the default ini file (received with the software kit). To load the ini file via the Embedded Web Server, see Accessing the Embedded Web Server.

Accessing the Embedded Web Server

To access the Embedded Web Server, perform these steps:

1. Open a standard Web-browsing application such as Microsoft™ Internet Explorer™ (Version 6.0 and higher) or Netscape™ Navigator™ (Version 7.2 and higher).
2. In the URL field, specify the IP address of the gateway (e.g., http://10.1.10.10 for the first module of the V7122); the Embedded Web Server's **Enter Network Password** screen appears, shown in Figure 8.

Figure 8 Embedded Web Server Login Screen


Enter Network Password
This secure Web Site (at 10.33.4.125) requires you to log on.
Please type the User Name and Password that you use for Realm1.
User Name
Admin
Password
*****
Save this password in your password list
OK
Cancel

3 Enter the username (default: Admin), and password (default: Admin). Note that the **User Name** and **Password** fields are case-sensitive.

4 Click **OK;** the **Home** page appears.

Configuring the V7122 Basic Control Protocol Parameters

To configure the V7122 basic control protocol parameters, use the Embedded Web Server's 'Quick Setup' screen.

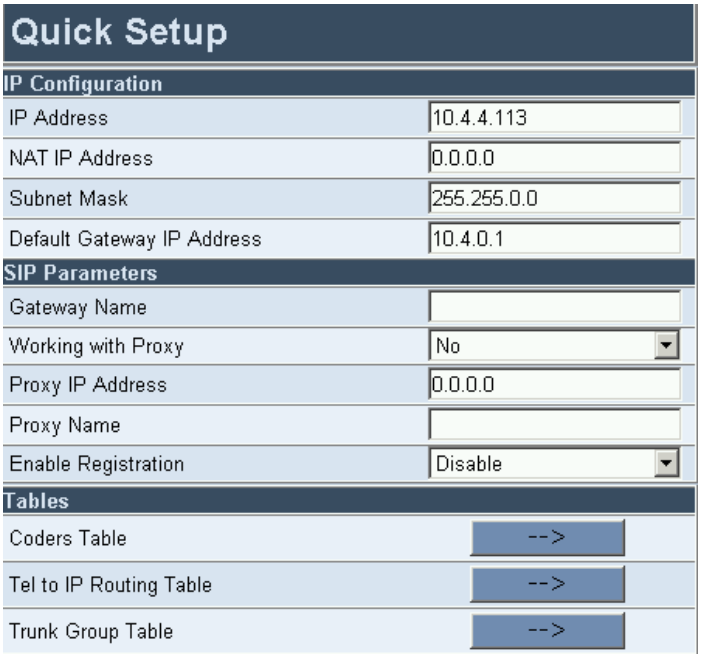
When you have completed the configuration, you are then ready to start using the V7122.

Once the gateway is configured correctly, back up your settings by saving the gateway configuration (ini file) in a directory on your PC. This saved file can be used to restore configuration settings at a future time. For information on backing up and restoring the gateway's configuration, see *Restoring and Backing Up the V7122 Media Gateway Configuration*.

Configuring Basic SIP Parameters

The basic SIP parameters are configured in the **Quick Setup** screen, as displayed below.

Figure 9 V7122 / SIP Quick Setup



To configure basic SIP parameters, perform these steps:

1. Access the **Quick Setup** screen, by clicking the **Quick Setup** menu (see Figure 9).
2. If the V7122 is connected to a router with NAT enabled, perform the following procedure. If it isn't, leave the **NAT IP Address** field undefined.
   - Determine the public IP address assigned to the router (by using, for instance, router Web management). Enter this public IP address in the **NAT IP Address** field.
   - Enable the DMZ configuration on the residential router for the LAN port where the V7122 gateway is connected. This enables unknown packets to be routed to the DMZ port.
3. Under **SIP Parameters**, enter the V7122 domain name in the field **Gateway Name**. If the field is not specified, the V7122 IP address is used instead (default).
4. When working with a Proxy server, set **Working with Proxy** field to **Yes**, and then enter the IP address of the primary Proxy server in the field **Proxy IP address**. When no Proxy is used, the internal routing table is used to route the calls.

5 Enter the Proxy name in the field **Proxy Name**. If Proxy name is used, it replaces the Proxy IP address in all SIP messages. This means that messages are still sent to the physical Proxy IP address but the SIP URI contains the Proxy name instead.

6 Configure **Enable Registration** to **Yes** or **No**:

- **Disable** = the V7122 does not register to a Proxy server/Registrar (default).
- **Enable** = the V7122 registers to a Proxy server/Registrar at power up and every **Registration Time** seconds.

7 Select the coder (i.e., vocoder) that best suits your VoIP system requirements. The default coder is: G.723.1 30 msec.

8 Map outgoing calls to IP addresses (when Proxy isn't used) by completing these steps:

a Click the arrow button next to the **Tel to IP Routing Table** label; the **Tel to IP Routing** screen opens.

Any telephone number whose destination number matches the prefix defined in the **Destination Phone Prefix** field and whose source number matches the prefix defined in the adjacent **Source Phone Prefix** field, is sent to the IP address entered in the **IP Address** field.

b Click the **Submit** button; the **Tel to IP Routing** table is automatically updated.

c Click **Quick Setup;** you're returned to the **Quick Setup** screen.

9 Enable E1/T1 B-channels by completing these steps:

a Click the arrow button next to the **Trunk Group Table** label; the **Trunk Group Table** screen opens.

b Select the number of the trunk you want to enable from the **Trunk ID** drop-down list.

c Enter the number of B-channels you want to enable in the **Channels**.

d Enter the starting phone number in the adjacent **Phone Number** (these are virtual numbers used only to define enabled B channels).

e Click the **Submit** button; the **Trunk Group Table** table is automatically updated.

f Click **Quick Setup;** you're returned to the **Quick Setup** screen.

10 Click the **Reset** button, and then at the prompt click **OK;** the V7122 applies the changes and restarts. This takes approximately three minutes

to complete. When the V7122 completes the restart, the **Ready** and **LAN** LEDs on the front panel are lit green.

11 After the gateway is reset, configure the V7122 trunk parameters. For information on configuring the trunk parameters, see Configuring the Trunk Settings, next.

Configuring the Trunk Settings

To configure the trunk settings, perform these steps:

1 Access the Embedded Web Server (see Accessing the Embedded Web Server).

2 Open the **Trunk Settings** screen (**Advanced Configuration menu > Trunk Settings**); the screen appears with the parameter fields grayed (indicating read-only), and the **Stop Trunk** button is displayed at the bottom of the screen (indicating that the trunk is currently active). The **Trunk Status** indicators appear colored. Table 6 shows the possible indicators and their descriptions.

Figure 10 Trunk Settings Screen

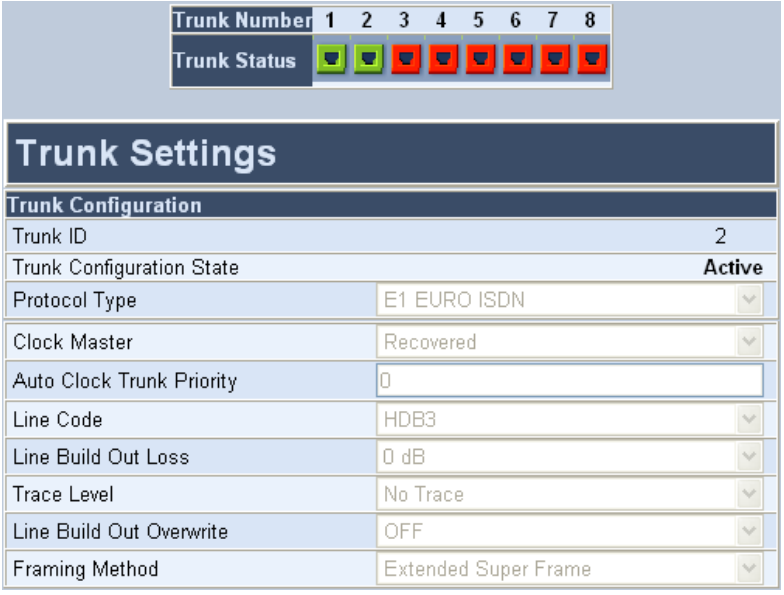

Trunk Number 1 2 3 4 5 6 7 8
Trunk Status
Trunk Settings
Trunk Configuration
Trunk ID 2
Trunk Configuration State Active
Protocol Type E1 EURO ISDN
Clock Master Recovered
Auto Clock Trunk Priority 0
Line Code HDB3
Line Build Out Loss 0 dB
Trace Level No Trace
Line Build Out Overwrite OFF
Framing Method Extended Super Frame

Table 6 Trunks Status Color Indicator Keys

Indicator	Color	Description
	Gray	Disabled
	Green	Active - OK
	Yellow	RAI Alarm
	Red	LOS / LOF Alarm
	Blue	AIS Alarm
	Orange	D-channel Alarm (ISDN only)

3 Select the trunk you want to configure, by clicking the **Trunk Status** icon pertaining to the trunk. The read-only **Trunk ID** field displays the trunk number that you selected. The parameters displayed in the screen pertain to the selected trunk only.

4 Click the **Stop Trunk** button (unless modifying a Dial Plan -- refer to the note below); the trunk is stopped. This is indicated by the following:

- The **Trunk Configuration State** read-only field displays **Inactive**.
- The **Stop Trunk** button is replaced by the **Apply Trunk Settings** button. (When all trunks are stopped, the **Apply to all Trunks** button also appears.)
- The parameters are no longer grayed and can now be modified.

*If the trunk can't be stopped because it provides the gateway's clock (assuming the V7122 is synchronized with the E1/T1 clock), assign a different E1/T1 trunk to provide the gateway's clock or enable **TDM Bus PSTN Auto Clock** on the **TDM Bus Settings** screen.*
*To assign a different E1/T1 trunk that provides the gateway's clock, access the **TDM Bus Setting** screen and change the **TDM Bus Local Reference** number to any other trunk number (this operation can be performed on-the-fly).*

5 From the **Protocol Type** drop-down list, select the required protocol. Note that different trunks can be defined with different protocols (CAS or ISDN variants) on the same gateway.

*When modifying the **Protocol Type** field, the menu is automatically updated according to the selected protocol (ISDN, CAS or Transparent). Additional parameters are appropriate to the selected protocol type.*

6 From the **Framing Method** drop-down list, select the required **Framing Method** (for E1 trunks, always set the Framing Method to **Extended Super Frame**).

7 From the **Clock Master** drop-down list, select the trunk clock source. Choose either **Recovered** (the clock is recovered from the trunk -- default) or **Generated** (the trunk's clock source is provided by the internal TDM bus clock source, according to the parameter **TDM Bus Clock Source**).

8 From the **Line Code** drop-down list, select the line code. Choose either **B8ZS** (bipolar 8-zero substitution) for T1 trunks only; **HDB3** (high-density bipolar 3) for E1 trunks only; or **AMI** (alternate mark inversion, used for both T1 and E1).

9 From the **ISDN Termination Side** drop-down list (applicable only to ISDN protocols), select **User Side** when the PSTN or PBX side is configured as **Network side**, and vice versa. If you don't know the V7122 ISDN termination side, choose **User Side** and then open the **Channel Status** screen (by clicking the Home button). If the D-channel alarm is indicated, choose **Network Side**.

10 To configure the different behavior bits, either enter the exact hexadecimal value of the bits in the field to the right of the relevant behavior parameter, or directly configure each bit field by completing the following steps:

   a Click the arrow button (-->) to the right of the relevant behavior parameter; the relevant behavior screen appears.

   b Modify each bit field according to your requirements.

   c Click the **Submit** button to save your changes.

11 After modifying the parameters:

   - To apply the changes to the selected trunk only, click the **Apply Trunk Settings** button.
   - To apply the changes to all the trunks, click the **Apply to all Trunks** button.

The screen is refreshed and parameters become read-only (indicated by being grayed). The **Stop Trunk** button appears at the bottom of the screen.

12 Access the **TDM Bus Settings** screen (**Advanced Configuration > TDM Bus Settings**). From the **PCM Law Select** drop-down list, select **Alaw** for E1 trunks and **MuLaw** for T1 trunks.

13 To save the changes so they are available after a power fail, perform the following:

a Click the **Maintenance** button on the main menu bar; the **Maintenance Actions** screen appears.

b From the **Burn to FLASH** drop-down list, select **Yes**, and then click the **Reset** button; a confirmation message appears when the save is complete.

4 Changing the V7122 Media Gateway Username and Password

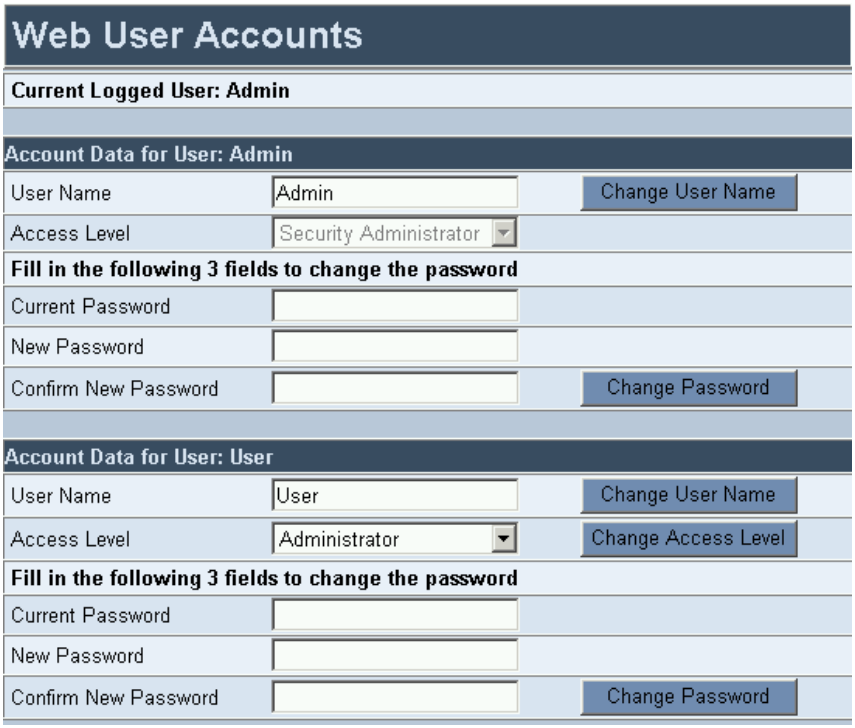
To prevent unauthorized access to the Embedded Web Server, two user accounts are available: a primary and secondary.

It is recommended that you change the default username and password of the account you use to access the Embedded Web Server.

To change the username and password, perform these steps:

1 Open the **Web User Accounts** screen (**Advanced Configuration menu > Security Settings > Web User Accounts** option); the **Web User Accounts** screen is displayed. See Figure 11.

Figure 11 Web User Accounts Screen



2 To change the username of an account, enter the new username in the field **User Name** and click the button **Change User Name**; the new username is applied immediately and the **Enter Network Password** screen appears (see Figure 8). Enter the updated username in the **Enter Network Password** screen. Note that the username can be a maximum of 19 case-sensitive characters.

3 To change the password of an account, perform these steps:

a In the **Current Password** field, enter the current password.

b In the **New Password** and Confirm Password fields, enter the new password. Note that the password can be a maximum of 19 case-sensitive characters.

c Click the button **Change Password;** the new password is applied immediately and the **Enter Network Password** screen appears (see Figure 8). Enter the updated password in the **Enter Network Password** screen.

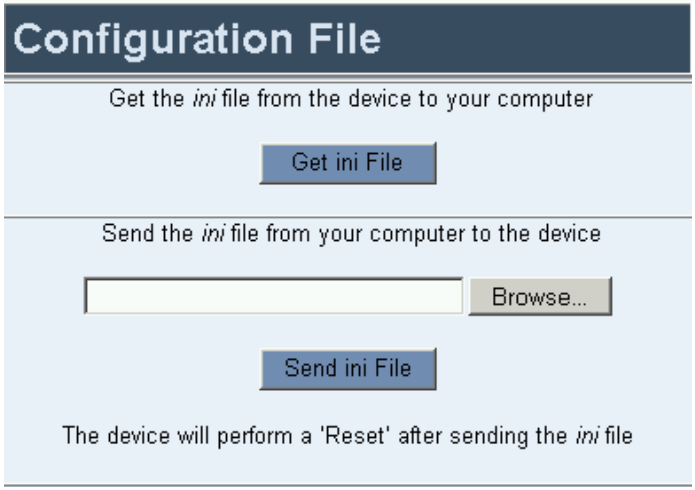
5 Restoring and Backing Up the V7122 Media Gateway Configuration

The 'Configuration File' screen (see Figure 12), enables you to restore (load a new **ini** file to the gateway), or back up (save the VoIP gateway **ini** file in a directory on your PC) the current gateway configuration. For a description of the ini file, see Table 13.

Back up your configuration if you want to protect your VoIP gateway configuration. The backup **ini** file includes only those parameters that were modified and contain other than default values.

Restore your configuration if the VoIP gateway has been replaced or has lost its configuration. You can restore the VoIP gateway configuration from a previous backup or from a newly created **ini** file. To restore the VoIP gateway configuration from a previous backup you must have a backup of the VoIP gateway configuration stored on your PC.

Figure 12 Configuration File Screen


Configuration File
Get the ini file from the device to your computer
Get ini File
Send the ini file from your computer to the device
Browse...
Send ini File
The device will perform a 'Reset' after sending the ini file

To back up the ini file, perform these steps:

1. Open the **Configuration File** screen (**Advanced Configuration menu > Configuration File**); the **Configuration File** screen is displayed.
2. Click the **Get ini File** button; the **File Download** window opens.
3. Click the **Save** button; the **Save As** window opens.
4. Navigate to the folder where you want to save the **ini** file.
5. Click the **Save** button; the VoIP gateway copies the ini file to the folder you selected.

To restore the ini file, perform these steps:

1. Open the **Configuration File** screen (**Advanced Configuration menu > Configuration File**); the Configuration File screen appears.
2. Click the **Browse** button.
3. Navigate to the folder that contains the **ini** file you want to load.
4. Select the file, and then click the **Open** button; the name and path of the file appear in the field beside the Browse button.
5. Click the **Send ini File** button, and then at the prompt, click **OK;** the gateway is automatically reset (from the cmp version stored on the flash memory).

6 MONITORING THE V7122 MEDIA GATEWAYS

The V7122 provides several ways for monitoring the status of the gateway:

- Monitoring the V7122 LEDs (see Monitoring the V7122 Chassis LEDs and TP-1610 Front Panel LED Indicators below).
- Monitoring the V7122 trunks and B-channels using the embedded Web server (see Monitoring Trunks and B-channels using Web Interface).

Monitoring the V7122 Chassis LEDs

Table 7 provides a detailed description of the V7122 chassis' LED indicators.

Table 7 Chassis LEDs Description

Location	Color	Description
Right side of front panel	Green	Power is on.
Right side of front panel	Red	At least one of the internal fans has significantly reduced its speed or has stopped (i.e., fan failure).
Left side of front panel	Red	One of the two AC redundant power supplies is faulty or disconnected from the AC/mains outlet (i.e., power supply failure). This LED is only relevant for the dual AC power supply.

TP-1610 Front Panel LED Indicators

The functionality of the front panel LEDs for the TP-1610 board is described in the following tables. Note that there is a choice of front panels according to the number of channels.

Table 8 Status LEDs Description

Label	Color	Description
Fail	Red	Gateway failure (fatal error)

Table 8 Status LEDs Description

Label	Color	Description	
	--	Normal operation	
ACT	Green	Gateway initialization sequence terminated OK	Bi-color LED
	Yellow	N/A	

Table 9 E1/T1 Trunk Status LEDs Description

Label	Color	Description	
T1/E1 Status 1 to 8 and	Green	Trunk is synchronized (normal operation)	Bi-color LED
T1/E1 Status 9 to 16	Red	Loss due to any of the following 4 signals	
		LOS Loss of Signal	
		LFA Loss of Frame Alignment	
		AIS Alarm Indication Signal (the Blue Alarm)	
		RAI Remote Alarm Indication (the Yellow Alarm)	

On the front panel, 16 LEDs are provided for 16-span units and 8 LEDs are provided for 1-span, 2-span, 4-span, and 8-span units. In the case of 1-, 2-, and 4-span units, the extra LEDs are unused.

Table 10 Ethernet LEDs Description

Label	LED	Description
LINK	Green	Link all OK
ACT	Yellow	Transmit / receive activity

Table 11 cPCI LED Indicators

Label	LED	Description
PWR	Green	Power is supplied to the board
SWAP READY	Blue	The cPCI board can now be removed.
		The cPCI board was inserted successfully.

During correct V7122 operation, the **ACT** LED is lit green and the **FAIL** LED is off.

Monitoring Trunks and B-channels using Web Interface

To monitor the status of the trunks and B-channels, open the **Home** page by clicking the **Home** icon.

Figure 13 Home Page

The color-coding of the Trunk status icons in the Home page is described in Table 12:

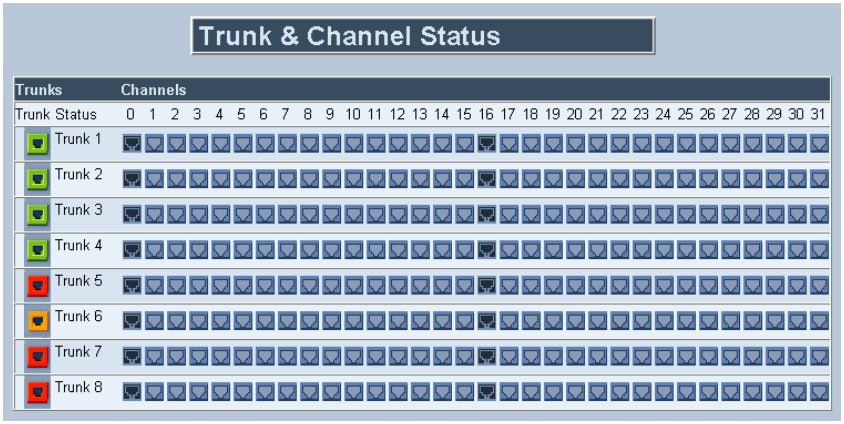
Table 12 Colors of Trunk Status Icons

(White) — Disabled	(Green) — Active
(Yellow) — RAI alarm	(Red) — LOS / LOF alarm
(Blue) — AIS alarm	(Orange) — D-channel alarm

To monitor the details of a Trunk's B-channel, perform these steps:

1 Open the **Trunk & Channel Status** screen (**Status & Diagnostics > Channel Status**). See Figure 14.

Figure 14 Home Page


Trunk & Channel Status
Trunks
Channels
Trunk Status
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Trunk 1
Trunk 2
Trunk 3
Trunk 4
Trunk 5
Trunk 6
Trunk 7
Trunk 8

2 Click the required B-channel icon whose detailed status you want to view; the B-channel specific **Channel Status** screen appears.

3 Click the submenu links to view a specific B-channel's parameter settings.

7 Upgrading the V7122 Media Gateways

The **Software Update** menu enables you to upgrade the V7122 software by loading a new **cmp** file along with the **ini** and a suite of auxiliary files, or to update the existing auxiliary files.

The **Software Update** menu comprises two submenus:

- Software Upgrade Wizard (see Software Upgrade Wizard).
- Load Auxiliary Files (see Updating the Auxiliary Files).

*When you upgrade the V7122 Gateway software you must load the new **cmp** file with all other related configuration files.*

Software Upgrade Wizard

The Software Upgrade Wizard guides you through the process of software upgrade -- selecting files and then loading them to the gateway. The wizard also enables you to upgrade software (cmp file) while maintaining the existing configuration. Using the wizard obligates you to load a cmp file. You can choose to also use the wizard to load the ini and auxiliary files (e.g., Call Progress Tones), but this option cannot be pursued without loading the cmp file. For the ini and each auxiliary file type, you can choose to reload an existing file, load a new file, or not load a file at all.

***CAUTION:** The Software Upgrade Wizard requires the gateway to be reset at the end of the process, which may disrupt traffic. To avoid this, disable all traffic on the device before initiating the wizard by performing a graceful lock.*

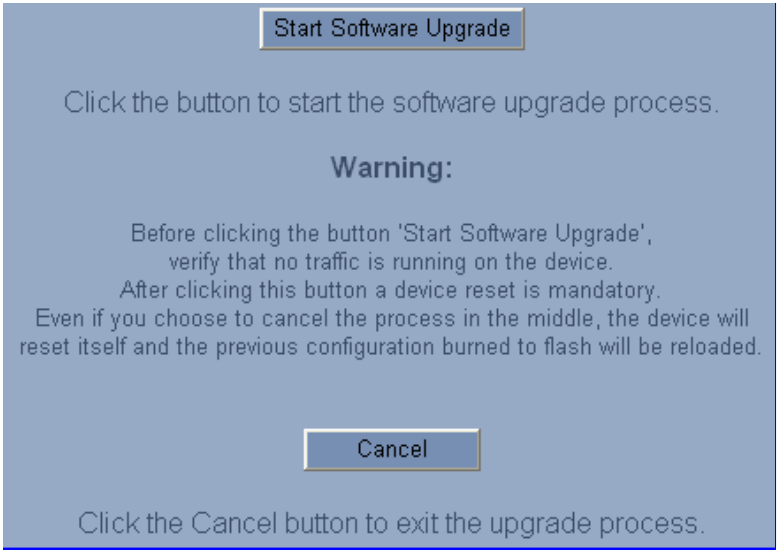
- *When you activate the wizard, the rest of the Web interface is unavailable. After the process is complete, access to the full Web interface is restored.*
- *The wizard allows you to load an **ini** auxiliary file only after you have loaded a **cmp** file.*

To use the Software Upgrade Wizard, perform these steps:

1 Stop all traffic on the V7122 (see the note above).

2 Open the **Software Upgrade Wizard** (**Software Update menu > Software Upgrade Wizard**); the **Start Software Upgrade** screen appears.

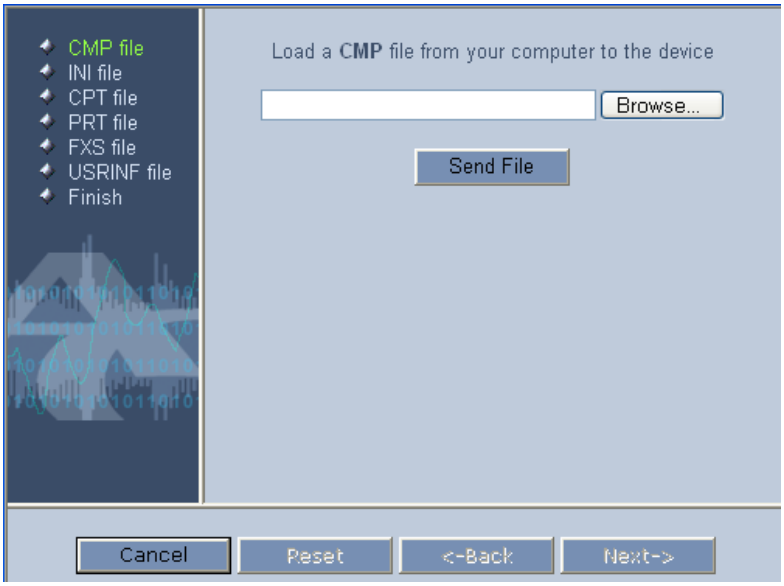
Figure 15 Start Software Upgrade Screen


Start Software Upgrade
Click the button to start the software upgrade process.
Warning:
Before clicking the button 'Start Software Upgrade',
verify that no traffic is running on the device.
After clicking this button a device reset is mandatory.
Even if you choose to cancel the process in the middle, the device will
reset itself and the previous configuration burned to flash will be reloaded.
Cancel
Click the Cancel button to exit the upgrade process.

*At this point, the process can be canceled with no consequence to the V7122 (click the **Cancel** button). If you continue the process (by clicking the **Start Software Upgrade** button, the process must be followed through and completed with a V7122 reset at the end. If you click the **Cancel** button in any of the subsequent screens, the V7122 is automatically reset with the configuration that was previously burned in flash memory.*

3 Click the **Start Software Upgrade** button; the **Load a cmp file** screen appears (see Figure 16).

Figure 16 Load a cmp File Screen



4 Click the **Browse** button, navigate to the **cmp** file, and then click **Send File;** the cmp file is loaded to the V7122 and you're notified as to a successful loading (see Figure 17).

Figure 17 cmp File Successfully Loaded into the Device Notification

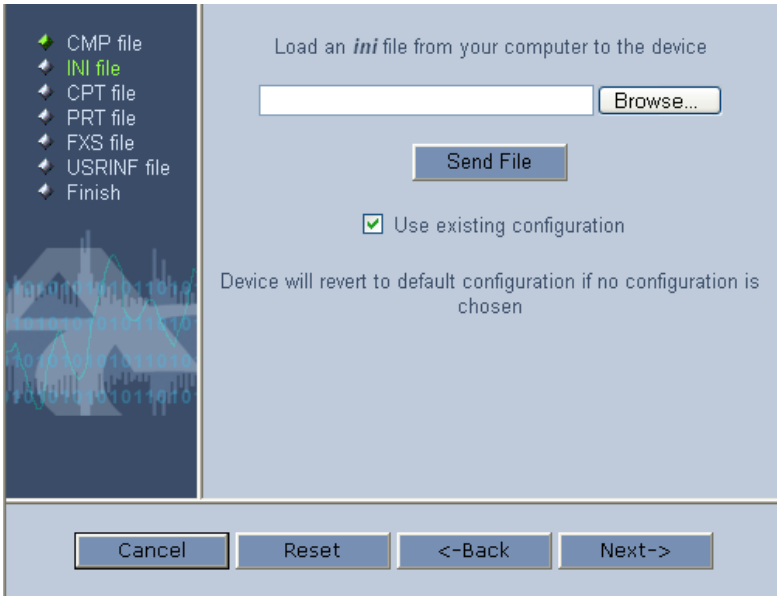
5 Note that the four action buttons (**Cancel, Reset, Back,** and **Next**) are now activated (following **cmp** file loading).

You can now choose to either:

- Click **Reset;** the V7122 resets, utilizing the new **cmp** you loaded and utilizing the current configuration files.
- Click **Cancel;** the V7122 resets utilizing the **cmp, ini** and all other configuration files that were previously stored in flash memory. Note that these are NOT the files you loaded in the previous Wizard steps.
- Click **Back;** the **Load a cmp File** screen is reverted to (see Figure 16).
- Click **Next;** the **Load an ini File** screen opens (see Figure 18). Loading a new ini file or any other auxiliary file listed in the Wizard is optional.

Note that as you progress, the file type list on the left indicates which file type loading is in process by illuminating green (until **Finish**).

Figure 18 Load an ini File Screen



6 In the Load and ini File screen, you can now choose to either:

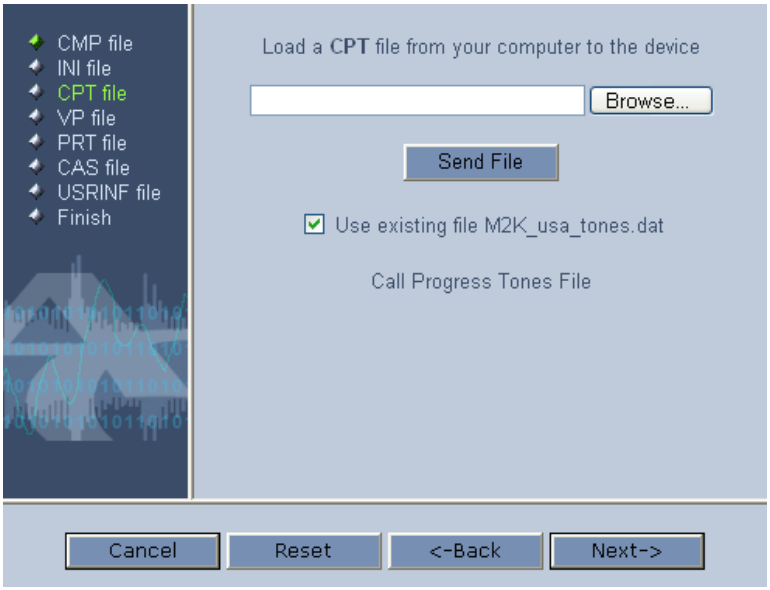
- Click **Browse** and navigate to the ini file; the check box **Use existing configuration,** by default checked, becomes unchecked. Click **Send File;** the ini file is loaded to the V7122 and you're notified as to a successful loading.
- Ignore the Browse button (its field remains undefined and the check box **Use existing configuration** remains checked by default.
- Ignore the Browse button and uncheck the User existing configuration check box; no ini file is loaded, the V7122 uses its factory-preconfigured values.

You can now choose to either:

- Click **Cancel;** the V7122 resets utilizing the **cmp, ini** and all other configuration files that were previously stored in flash memory. Note that these are NOT the files you loaded in the previous Wizard steps.
- Click **Reset;** the V7122 resets, utilizing the new **cmp** and **ini** file you loaded up to now as well as utilizing the other configuration files.
- Click **Back;** the **Load a cmp file** screen is reverted to; see Figure 16.

- Click **Next;** the **Load a CPT File** screen opens, see Figure 19; Loading a new CPT file or any other auxiliary file listed in the Wizard is optional.

Figure 19 Load a CPT File Screen



7 Follow the same procedure you followed when loading the **ini** file (see the previous step in this section). The same procedure applies to the **Load a coefficient file** screen.

8 In the Finish screen (see Figure 20), the Next button is disabled. Complete the upgrade process by clicking **Reset** or **Cancel.**

- Click Reset; the V7122 burns the newly loaded files to flash memory. The **Burning files to flash memory** screen appears. Wait for the burn to finish. When it finishes, the **End Process** screen appears, displaying the burned configuration files (see Figure 21).
- Click Cancel; the V7122 resets, utilizing the files previously stored in flash memory. (Note that these are NOT the files you loaded in the previous Wizard steps.)

Figure 20 Finish Screen

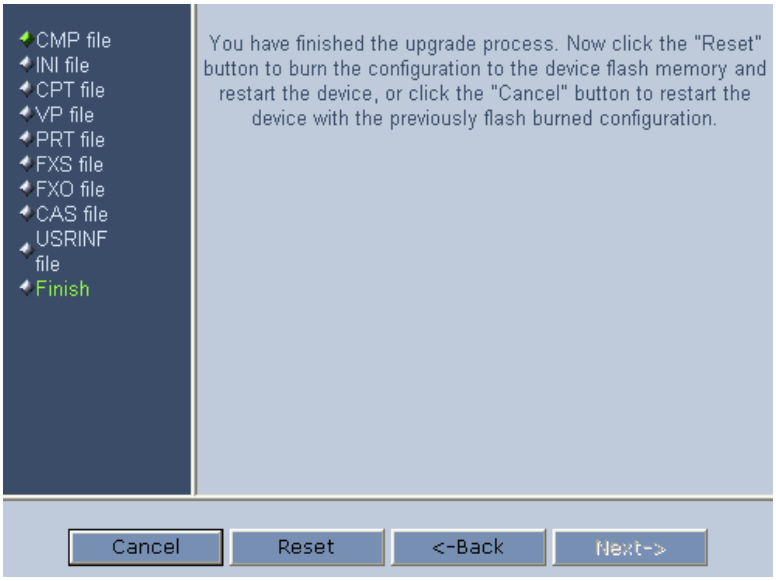
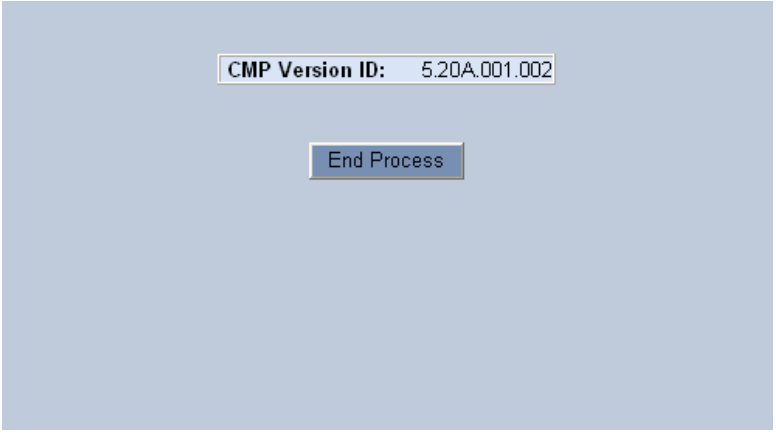

CMP file
INI file
CPT file
VP file
PRT file
FXS file
FXO file
CAS file
USRINF file
Finish
You have finished the upgrade process. Now click the "Reset" button to burn the configuration to the device flash memory and restart the device, or click the "Cancel" button to restart the device with the previously flash burned configuration.
Cancel
Reset
<-Back
Next->

Figure 21 End Process Screen



9 Click the **End Process** button; the Home page appears and the full Web application is reactivated.

Updating the Auxiliary Files

The auxiliary files are configuration **dat** files that are loaded to the gateway (in addition to the **ini** file) to enable enhanced gateway

provisioning. Table 13 presents a brief description of the **ini** file and the auxiliary files.

Table 13 ini and Auxiliary Files Descriptions

File Type	Description
ini	Load this file to provision the V7122 parameters. The Embedded Web Server enables practically full device provisioning but customers may occasionally require new feature configuration parameters in which case this file is loaded. Note that loading the ini file only provisions parameters that are contained in the ini file. If a parameter is not specified in the ini file, values associated with that parameter are reset to a default value. These values may not be the same as the values that were configured for the VoIP gateway at the time of manufacture. **Note:** After the file has completed loading, the VoIP gateway automatically restarts (software is loaded from the flash).
CAS	(Only applicable for digital interfaces.) Up to eight different CAS files containing specific CAS protocol definitions. These files are provided to support various types of CAS signaling.
Dial Plan	The Dial Plan file.
Voice Prompts	The voice announcement file contains a set of Voice Prompts to be played by the V7122 during operation on Call Agent request.
Call Progress Tones	This is a region-specific, telephone exchange-dependent file that contains the Call Progress Tones levels and frequencies that the VoIP gateway uses. Default CPT file: U.S.A.
Prerecorded Tones	The dat PRT file enhances the gateway's capabilities of playing a wide range of telephone exchange tones that cannot be defined in the Call Progress Tones file.
User Information	The User Information file maps PBX extensions to IP numbers. This file can be used to represent PBX extensions as IP phones in the global 'IP world'.

To load an auxiliary file via the Embedded Web Server, perform these steps:

1 Open the **Auxiliary Files** screen (**Software Update menu > Load Auxiliary Files**); the **Auxiliary Files** screen is displayed (see Figure 22).

2 Click the **Browse** button corresponding to the type of file you want to load.

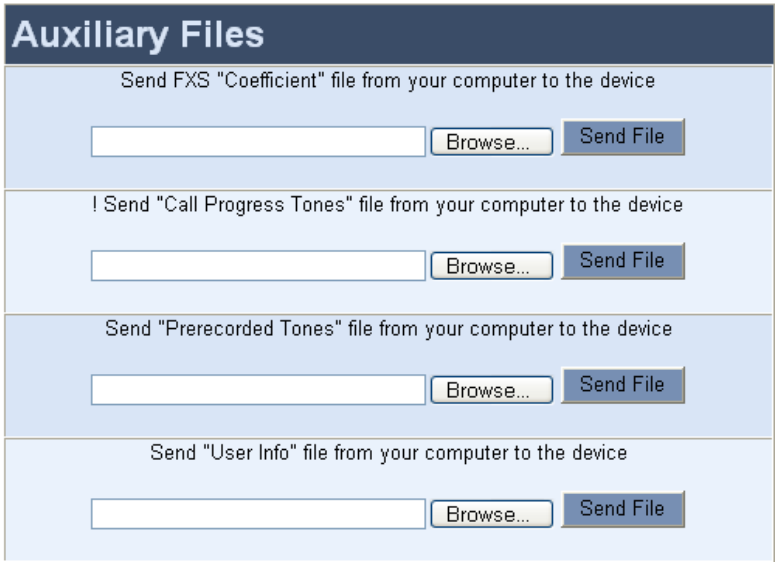
3 Navigate to the folder that contains the file you want to load.

4 Click the file and click the **Open** button; the name and path of the file appear in the field next to the **Browse** button.

5 Click the **Send File** button adjacent to the field that contains the name of the file you want to load. An asterisk in the screen section indicates that the file's loading takes effect immediately (e.g., Voice Prompts file).

6 Repeat steps 2 through 5 for each file you want to load.

Figure 22 Auxiliary Files Screen (e.g., SIP Gateways)


Auxiliary Files
Send FXS "Coefficient" file from your computer to the device
Browse...
Send File
! Send "Call Progress Tones" file from your computer to the device
Browse...
Send File
Send "Prerecorded Tones" file from your computer to the device
Browse...
Send File
Send "User Info" file from your computer to the device
Browse...
Send File

To save the loaded auxiliary files (e.g., CPT) to flash memory and reset the gateway, perform these steps:

1 On the main menu bar, click the **Maintenance** button; the **Maintenance Actions** screen appears.

2 Saving an auxiliary file to flash memory may disrupt traffic. Therefore, disable all traffic on the device by performing a **Graceful Lock:**

   a Under the **LOCK / UNLOCK** group, select **Yes** from the **Graceful Option** drop-down list.

   b In the **Lock Timeout** field, enter the time (in seconds) after which the gateway locks.

c Click **LOCK;** now new calls are accepted and the gateway locks and terminates all calls after the **Lock Timeout** value expires. Note that if no traffic exists and the time has not yet expired, the gateway locks.

3 Under the **RESET** group, select the **Yes** option from the **Burn to FLASH** drop-down list, and then click **Reset;** the auxiliary files are saved into flash and the V7122 Gateway restarts. This takes approximately three minutes to complete. When the V7122 has finished restarting, the **Ready** and **LAN** LEDs on the front panel are lit green.

8 REGULATORY INFORMATION

Table 14 Declaration of Conformity

Application of Council Directives:	**73/23/EEC (including amendments), 89/336/EEC (including amendments), 1999/5/EC Annex-II of the Directive**
Standards to which Conformity is Declared:	EN55022: 1998 + A1: 2000 + A2: 2003 EN55024:1998 + A1: 2001 + A2: 2003 EN61000-3-2: 2000 + A2: 2005 EN61000-3-3: 1995 + A1: 2001 EN60950-1: 2001
Manufacturer's Name:	AudioCodes Ltd.
Manufacturer's Address:	1 Hayarden Street, Airport City, Lod 70151, Israel.
Type of Equipment:	Analog VoIP System.
Model Numbers:	MP-11x/FXS+FXO Mixed Series (MP-114/ 2FXS/2FXO; MP-118/ 4FXS/4FXO) MP-11x/FXS Series (MP-112/ 2FXS; MP-114/ 4FXS; MP-118/ 8FXS) MP-11x/FXO Series (MP-112/ 2FXO; MP-114/ 4FXO; MP-118/ 8FXO) MP-124/FXS Series (MP-124D/FXS)

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards.

Signature Date: 27th June 2006

Location: Airport City, Lod, Israel

I. Zusmanovich, Compliance Engineering Manager

Czech	[AudioCodes Ltd] tímto prohlašuje, že tento [MP-11x/FXS & FXO Series & MP-124] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 89/336/EEC, 73/23/EEC.
Danish	Undertegnede [AudioCodes Ltd] erklærer herved, at følgende udstyr [MP-11x/FXS & FXO Series & MP-124] overholder de væsentlige krav og øvrige relevante krav i direktiv 89/336/EEC, 73/23/EEC.
Dutch	Hierbij verklaart [AudioCodes Ltd] dat het toestel [MP-11x/FXS & FXO Series & MP-124] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 89/336/EEC, 73/23/EEC
English	Hereby, [AudioCodes Ltd], declares that this [MP-11x/FXS & FXO Series & MP-124] is in compliance with the essential requirements and other relevant provisions of Directive 89/336/EEC, 73/23/EEC.
Estonian	Käesolevaga kinnitab [AudioCodes Ltd] seadme [MP-11x/FXS & FXO Series & MP-124] vastavust direktiivi 89/336/EEC, 73/23/EEC põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Finnish	[AudioCodes Ltd] vakuuttaa täten että [MP-11x/FXS & FXO Series & MP-124] tyyppinen laite on direktiivin 89/336/EEC, 73/23/EEC oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
French	Par la présente [AudioCodes Ltd] déclare que l'appareil [MP-11x/FXS & FXO Series & MP-124] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 89/336/EEC, 73/23/EEC
German	Hiermit erklärt [AudioCodes Ltd], dass sich dieser/diese/dieses [MP-11x/FXS & FXO Series & MP-124] in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 89/336/EEC, 73/23/EEC befindet". (BMWi)
Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [AudioCodes Ltd] ΔΗΛΩΝΕΙ ΟΤΙ [MP-11x/FXS & FXO Series & MP-124] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 89/336/ΕΕC, 73/23/ΕΕC
Hungarian	Alulírott, [AudioCodes Ltd] nyilatkozom, hogy a [MP-11x/FXS & FXO Series & MP-124] megfelel a vonatkozó alapvető követelményeknek és az 89/336/EEC, 73/23/EEC irányelv egyéb előírásainak
Icelandic	æki þetta er í samræmi við tilskipun Evrópusambandsins 89/336/EEC, 73/23/EEC
Italian	Con la presente [AudioCodes Ltd] dichiara che questo (MP-11x/FXS & FXO Series & MP-124) è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 89/336/EEC, 73/23/EEC.
Latvian	Ar šo [AudioCodes Ltd] deklarē, ka [MP-11x/FXS & FXO Series & MP-124] atbilst Direktīvas 89/336/EEC, 73/23/EEC būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lithuanian	[AudioCodes Ltd] deklaruoja, kad irenginys [MP-11x/FXS & FXO Series & MP-124] tenkina 89/336/EEC, 73/23/EEC Direktyvos esminius reikalavimus ir kitas sios direktyvos nuostatas
Maltese	Hawnhekk, [AudioCodes Ltd], jiddikjara li dan [MP-11x/FXS & FXO Series & MP-124] jikkonforma mal-?ti?ijiet essenzjali u ma provvedimenti o?rajn relevanti li hemm fid-Dirrettiva 89/336/EEC, 73/23/EEC
Norwegian	Dette produktet er i samhørighet med det Europeiske Direktiv 89/336/EEC, 73/23/EEC
Polish	[AudioCodes Ltd], deklarujemy z pełna odpowiedzialnoscia, ze wyrób [MP-11x/FXS & FXO Series & MP-124] spełnia podstawowe wymagania i odpowiada warunkom zawartym w dyrektywie 89/336/EEC, 73/23/EEC
Portuguese	[AudioCodes Ltd] declara que este [MP-11x/FXS & FXO Series & MP-124] está conforme com os requisitos essenciais e outras disposições da Directiva 89/336/EEC, 73/23/EEC.
Slovak	[AudioCodes Ltd] týmto vyhlasuje, že [MP-11x/FXS & FXO Series & MP-124] spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 89/336/EEC, 73/23/EEC.
Slovene	Šiuo [AudioCodes Ltd] deklaruoja, kad šis [MP-11x/FXS & FXO Series & MP-124] atitinka esminius reikalavimus ir kitas 89/336/EEC, 73/23/EEC Direktyvos nuostatas.
Spanish	Por medio de la presente [AudioCodes Ltd] declara que el (MP-11x/FXS & FXO Series & MP-124) cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 89/336/EEC, 73/23/EEC
Swedish	Härmed intygar [AudioCodes Ltd] att denna [MP-11x/FXS & FXO Series & MP-124] står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 89/336/EEC, 73/23/EEC.

Safety Notice

1. Installation and service of this gateway must only be performed by authorized, qualified service personnel.
2. To avoid risk of fire use 26 AWG or higher wiring to connect the FXS or FXO telecom ports.
3. The equipment must be connected by service personnel to a socket-outlet with a protective earthing connection.
4. The protective earth terminal on the back of the MP-124 must be permanently connected to protective earth.

Telecommunication Safety

The safety status of each port on the gateway is declared and detailed in the table below:

Ports	Safety Status
Ethernet (100 Base-TX)	SELV
FXS	TNV-3
FXO	TNV-3

TNV-3:

Circuit whose normal operating voltages exceeds the limits for an SELV circuit under normal operating conditions and on which over voltages from Telecommunication Networks are possible

SELV:

Safety extra low voltage circuit.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada Notice

This equipment meets the applicable Industry Canada Terminal Equipment technical specifications. This is confirmed by the registration

numbers. The abbreviation, IC, before the registration number signifies that registration was performed based on a declaration of conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

FXO Ports: The Ringer Equivalence Number (REN) for this terminal is 0.05 The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of Ringer Equivalence Number of all devices do not exceed five.

Network Compatibility of FXO Ports

The products support the Telecom networks in EU that comply with TBR21.

ACTA Customer information

1. This equipment, the VoIP Analog Gateway, models MP-118, MP-114 and MP-112 complies with Part 68 of the FCC Rules and the requirements adopted by the ACTA. On the bottom of the unit of this equipment is a label, that contains among other information, a product identifier in the format US:AC1IT00BMP11X3AC. If requested, this number must be provided to the telephone company.
2. This equipment is designed to be connected to the telephone network using an RJ-11C connector, which is Part 68 compliant. The service order code (SOC) is 9.0Y and the Facility interface code (FIC) is 02LS2.
3. The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. The REN for this product is part of the product identifier that has the format US:AC1IT00BMP11X3AC The digits represented by 00 are the REN without a decimal point.
4. Should the product causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, you will be notified as soon as possible. Also, you will be advised of your right to file a compliant with the FCC if it is necessary.

5 The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

6 If trouble is experienced with this equipment, for repair or warranty information please contact AudioCodes Inc., 2099 Gateway Place, Suite 500, San Jose, CA, 95110, phone number 1-408-441-1175. If the equipment is causing harm to the telephone network, the telephone company may request to disconnect the equipment until the problem is resolved.

7 Installation is described in the Product User's manual. Connection to Telephone Company-provided coin service is prohibited. Connection to party lines service is subject to State tariffs.

A Obtaining Support for Your 3Com Product

Customer Support

Customer technical support and service are provided by 3Com Distributors, Partners, and Resellers from whom the product was purchased. To obtain Customer Support for products purchased directly from 3Com, contact support@3Com.com.